

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) Vertebral osteosynthesis equipment, ~~including bony anchoring members, such as pedicular screws (1) and/or lamar hooks, one or two linking rods (2), intended to be connected to these anchoring members and to be attached to the vertebrae by dint thereof,~~

comprising:

anchoring members (1),

at least one said anchoring member being a polyaxial anchoring member comprised of a proximal stud (5) articulated with respect to a body (6), the body having threads for gripping a vertebra,

wherein the proximal stud (5) comprises i) an articulation head comprising a spherical cap, and ii) a threaded cylindrical portion (10) extending from at top of the spherical cap of the articulation head (11), a maximum diameter of the spherical cap being at a distalmost end surface of the stud,

wherein the body comprises a crimped wall (17) defining a cavity (16) surrounding the spherical cap, the crimped wall (17) being crimped around the spherical cap and shaped with an at least partially hemispherical external proximal form;

a linking rod (2);

connecting parts (3) for connecting the linking rod (2) to the anchoring members, and, via the anchoring members, to the vertebrae; this(these) linking rod(s) (2) to these anchoring members, and

clamping parts means, such as nuts (4), for locking the linking rod rod(s) (2) in said connecting parts (3)

; ~~at least one anchoring member is of the "polyaxial" type, i.e. comprises one proximal stud (5) articulated with respect to a body (6) intended for gripping a vertebra ;~~

~~equipment characterized in that :~~

~~the proximal stud (5) of said polyaxial anchoring member exhibits an articulation head (11) in the form of a spherical cap ; and~~

~~—said body (6) of this anchoring member comprises a cavity (16) intended for accommodating this articulation head (11) and a wall (17) surrounding this cavity (16), this wall (17) being crimped around said articulation head (11) and shaped in order to provide a proximal form, at least partially hemispherical.~~

2. (currently amended) Vertebral osteosynthesis equipment according to claim 1, ~~characterized in that~~ wherein, said body (6) further comprises a proximal gripping portion enabling to hold said body (6) when tightening said clamping parts~~means, this the proximal gripping portion comprising being formed of a collar (18) exhibiting several~~ with plural radial notches (19), the notches extending through an entire thickness of said collar.

3. (currently amended) Vertebral osteosynthesis equipment according to claim 2, ~~characterized in that~~ wherein, said collar (18) exhibits comprises four notches (19) at 90° to one another.

4. (currently amended) Vertebral osteosynthesis equipment according to claim 1, ~~characterized in that~~ wherein,

said crimped wall (17) of said one anchoring member defines a bearing surface, and

~~comprises at least one~~

at least one connecting part (3) of the connecting parts comprises ~~exhibiting~~ i) a rounded section (20) intended for surrounding a portion of the linking rod (2) and ii) two parallel drilled distal wings (21), these the distal wings (21) being intended for engaging onto said proximal stud (5) and for being clamped, by the using said clamping parts means (4), against [[a]] the bearing surface (17) contained in said polyaxial anchoring member;

[[the]] one distal wing (21) of this the two parallel distal wings (21) comprises connecting part (3) exhibits a distal cavity (28) in the form of a spherical cap, of a greater diameter than that a diameter of said crimped wall (17), the one connecting part (3) being intended for resting against this the crimped wall (17) at of this the distal cavity (28).

5. (currently amended) Vertebral osteosynthesis equipment according to claim 4, ~~characterized in that~~ wherein,

said clamping parts comprises ~~means is~~ a nut (4),  
and

[[the]] a proximal branch (21) of this the one  
connecting part (3) comprises a proximal cavity (25), the  
nut engaging the threaded cylindrical portion and seated in  
the proximal cavity (25) wherein a corresponding zone  
~~exhibited by this nut (4) is intended for engaging.~~

6. (currently amended) Vertebral osteosynthesis equipment according to claim 5, ~~characterized in that~~ wherein, said cavity (25) and ~~said~~ a corresponding zone of the nut (4) are conical in shape.

7. (currently amended) Vertebral osteosynthesis equipment according to claim [[1]] 5, ~~characterized in that~~ wherein, the ~~stud (5) exhibits~~ threaded cylindrical portion  
comprises a zone (15) of reduced diameter, enabling to break  
~~its~~ a proximal portion of the threaded cylindrical portion  
after placing and clamping the nut (4).

8. (currently amended) Vertebral osteosynthesis equipment according to claim 1, ~~characterized in that~~ wherein, the proximal stud (5) and said connecting part (3) comprise means (14, 29) enabling to immobilise the proximal stud (5) in rotation when the connecting part (3) is engaged on the ~~this~~ proximal stud (5).

9. (currently amended) Vertebral osteosynthesis equipment according to claim 8, ~~characterized in that~~ wherein, said immobilising means comprise at least one flat surface (14) provided on the threaded cylindrical portion (10) of the proximal stud (5) and at least one corresponding flat surface provided on the connecting part (3), ~~whereas these flats~~ the flat surfaces are immediately close to one another ~~when~~ with the connecting part (3) ~~[[is]]~~ engaged on the proximal stud (5).

10. (currently amended) Method for manufacturing the polyaxial anchoring member according to claim 1, ~~characterized in that it comprises the steps consisting in~~ comprising the steps of:

- providing the articulation head (11) with the spherical cap on, ~~on the part intended for the proximal stud (5) of said polyaxial anchoring member, an articulation head (11) in the form of a spherical cap;~~

- providing ~~[[a]]~~ the wall (17) defining the cavity (16) on ~~in the proximal zone of the part intended for said body (6) of said anchoring member polyaxial, and, around this cavity (16), a wall (17) which may be crimped;~~

- engaging said articulation head (11) into said cavity (16), and

- crimping said wall (17) around said articulation head (11) so that ~~this~~ the wall (17) exhibits a proximal form at least partially hemispherical.

11. (currently amended) Vertebral osteosynthesis equipment according to claim 2, ~~characterized in that~~ wherein, said crimped wall (17) of said one anchoring member defines a bearing surface, and

~~comprises at least one~~

at least one connecting part (3) of the connecting parts comprises ~~exhibiting~~ i) a rounded section (20) ~~intended for~~ surrounding a portion of the linking rod (2)

and ii) two parallel ~~drilled~~ distal wings (21), ~~these the~~ distal wings (21) ~~being intended for~~ engaging onto said proximal stud (5) and ~~for~~ being clamped, by the ~~using said~~ clamping parts means (4), against ~~[[a]]~~ the bearing surface (17) ~~contained in said polyaxial anchoring member;~~

~~[[the]]~~ one distal wing (21) of ~~this the two~~ parallel distal wings (21) comprises ~~connecting part (3)~~ ~~exhibits~~ a distal cavity (28) in the form of a spherical cap, of a greater diameter than ~~that~~ a diameter of said crimped wall (17), the one connecting part (3) ~~being intended for~~ resting against ~~this the~~ crimped wall (17) at ~~of this the~~ distal cavity (28).

12. (currently amended) Vertebral osteosynthesis equipment according to claim 3, ~~characterized in that~~ wherein,

said crimped wall (17) of said one anchoring member defines a bearing surface, and

~~comprises at least one~~

at least one connecting part (3) of the connecting parts comprises ~~exhibiting~~ i) a rounded section (20) ~~intended for~~ surrounding a portion of the linking rod (2)



and ii) two parallel drilled distal wings (21), ~~these the~~  
distal wings (21) ~~being intended for~~ engaging onto said  
proximal stud (5) and ~~for~~ being clamped, by the ~~using said~~  
clamping parts means (4), against ~~[[a]]~~ the bearing surface  
(17) ~~contained in said polyaxial anchoring member;~~

~~[[the]]~~ one distal wing (21) of ~~this~~ the two  
parallel distal wings (21) comprises ~~connecting part (3)~~  
~~exhibits~~ a distal cavity (28) in the form of a spherical  
cap, of a greater diameter than ~~that~~ a diameter of said  
crimped wall (17), the one connecting part (3) ~~being~~  
~~intended for~~ resting against ~~this~~ the crimped wall (17) at  
~~of this~~ the distal cavity (28).

13. (currently amended) Vertebral osteosynthesis  
equipment according to claim 2, ~~characterized in that~~  
wherein, the stud (5) exhibits a zone (15) of reduced  
diameter at a location above the clamping part, ~~enabling~~  
~~to break its proximal portion after placing and clamping the~~  
~~nut (4).~~

14. (currently amended) Vertebral osteosynthesis  
equipment according to claim ~~[[3]]~~ 1, ~~characterized in that~~

wherein, stud (5) exhibits threaded cylindrical portion  
comprises a zone (15) of reduced diameter,~~enabling to break~~  
~~its proximal portion after placing and clamping the nut (4).~~

15. (currently amended) Vertebral osteosynthesis  
equipment according to claim 4, ~~characterized in that~~  
wherein, the stud (5) exhibits threaded cylindrical portion  
comprises a zone (15) of reduced diameter, enabling to break  
its a proximal portion of the threaded cylindrical portion  
~~after placing and clamping the nut (4).~~

16. (currently amended) Vertebral osteosynthesis  
equipment according to claim 2, ~~characterized in that~~  
wherein, the proximal stud (5) and said connecting part (3)  
comprise means (14, 29) enabling to immobilise the proximal  
stud (5) in rotation when the connecting part (3) is engaged  
on the ~~this~~ proximal stud (5).

17. (currently amended) Vertebral osteosynthesis  
equipment according to claim 3, ~~characterized in that~~  
wherein, the proximal stud (5) and said connecting part (3)  
comprise means (14, 29) enabling to immobilise the proximal

stud (5) in rotation when the connecting part (3) is engaged on the ~~this~~-proximal stud (5).

18. (currently amended) Vertebral osteosynthesis equipment according to claim 4, ~~characterized in that~~ wherein, the proximal stud (5) and said connecting part (3) comprise means (14, 29) enabling to immobilise the proximal stud (5) in rotation when the connecting part (3) is engaged on the ~~this~~-proximal stud (5).

19. (new) Vertebral osteosynthesis equipment, comprising:

a polyaxial anchoring member (1) comprised of i) a proximal stud (5) and ii) a body (6),

the proximal stud articulate with respect to the body (6),

the body including threads for gripping a vertebra,

the proximal stud (5) comprising a threaded cylindrical portion (10) extending from a distal articulation head (11), the articulation head comprising a

spherical cap with a maximum diameter at a distalmost end surface,

the body comprising a crimped wall (17) defining an articulation cavity (16) retaining the spherical cap of the articulation head (11), the crimped wall (17) being crimped around the spherical cap and shaped with an at least partially hemispherical external form, a largest diameter of the cavity defining a surface facing the distalmost end surface of the spherical cap;

a linking rod (2);

a connecting part (3) connecting the linking rod (2) to the anchoring member, and, via the anchoring member, to the vertebrae; and

clamping parts (4) locking the linking rod in said connecting part (3).

20. (new) Vertebral osteosynthesis equipment according to claim 19, wherein, said body (6) further comprises a proximal gripping collar (18) with four radial notches (19) at 90° to one another, the notches extending through an entire thickness of said collar.